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(54) Title: MICROMEMBRANE ACTUATOR

(57) Abstract: Thin film shape memory alloy (SMA) micro pump that has high work density and high frequency response. A miniature SMA pump is used to rectify liquid to achieve stroke. Controlled fluid flow provides forced convection cooling on the SMA membrane that allows the micro pump to operate at high operational frequencies and high work density.

WO 2004/094821 A2